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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,265	07/22/2004	Michitaka Kameyama	81919.0020	9388
26/021 7590 02/29/2008 HOGAN & HARTSON LLP. 1999 AVENUE OF THE STARS SUITE 1400 LOS ANGELES, CA 90067			EXAMINER TAN, VIBOL	
			ART UNIT 2819	PAPER NUMBER
			MAIL DATE 02/29/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/502,265

**Applicant(s)**

KAMEYAMA ET AL.

**Examiner**

Vibol Tan

**Art Unit**

2819

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 12, 13 and 15 is/are allowed.
- 6) ☒ Claim(s) 10, 11 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheikholeslami et al. (U. S. PAT. 5,930,161).

In claim 10, Sheikholeslami et al. teaches all claimed features in Fig. 6, a logical operation circuit comprising: a non-volatile memory element (612<sub>1</sub>) which can retain a non-volatile state corresponding to first operation target data (logic 0); and an operation result output section which outputs (col. 7, line 25; EX-OR not shown), based on a state of the non-volatile memory element (stored data) generated by providing second operation target data (logic 1) to the non-volatile memory element, the result of a logical operation (col. 7, line 25; EX-OR not shown) on the first and second operation target data and which is connected to a first terminal (MLp1) of the non-volatile memory element.

In claim 11, Sheikholeslami et al. further teaches a logical operation device comprising a plurality of logical operation circuits (612<sub>1</sub>, 612<sub>2</sub>) according to claim 10 which are in series and/or parallel (Fig. 6) to perform a desired operation.

In claim 12, Sheikholeslami et al. teaches all claimed features in Fig. 6, a logical operation device comprising: a retrieval word retaining section ( ) for retaining a retrieval

word as a retrieving target; and a word circuit for retaining a reference word as a referencing target and determining the coincidence between the reference word and the retrieval word, the word circuit comprising a plurality of logical operation circuits comprising of a non-volatile memory element which can retain a non-volatile state corresponding to first operation target data; and an operation result output section which outputs, based on a state of the non-volatile memory element generated by providing second operation target data to the non-volatile memory element, the result of logical operation on the first and second operation target data and which is connected a first terminal of the non-volatile memory element, which are arranged in series and/or parallel.

Method claim 14 corresponds to detailed circuitry already discussed similarly with regard to claim 10.

3. Claims 1-9, 12, 13 and 15 appear to comprise allowable subject matter(s).
4. The terminal disclaimer filed on 1/12/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/889,402 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 10, 11 and 14 have been considered but are moot in view of the new ground(s) of rejection.

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6. In view of further consideration and updated search, claims 10, 11 and 14 are now rejected under 35 U.S.C. 102(b) as being anticipated by Sheikholeslami et al., as set forth in above detailed action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vibol Tan/  
Primary Examiner, Art Unit 2819